



City of Seattle
Built Green Portfolio Analysis



Prepared for:
City of Seattle Department of Planning and Development



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Introduction

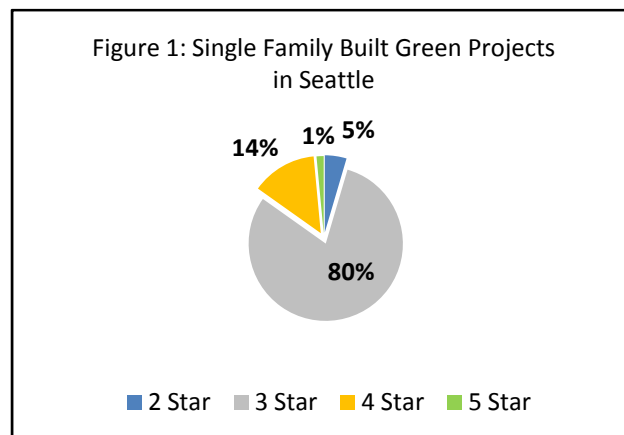
This report is a summary of the credit achievement of Built Green certified buildings in Seattle that achieved a rating between January 1, 2008 and December 31, 2008. The objective of this report is to summarize the trends of Built Green projects to understand the Built Green rating system and the potential for the development of a calculation methodology for a more in-depth analysis tool.

Analysis

The report summarizes the ratings of 66 projects which built using the Single Family, New Construction Checklist. Analysis was only done for this checklist, as it is used by a majority of the projects currently rated in Seattle. There are four major sections of the Single Family checklist: Site & Water, Energy Efficiency, Health & Indoor Air Quality, and Materials Efficiency. These four sections contain 342 credits and are worth over 900 points. Projects achieve a rating based on the number of points achieved.

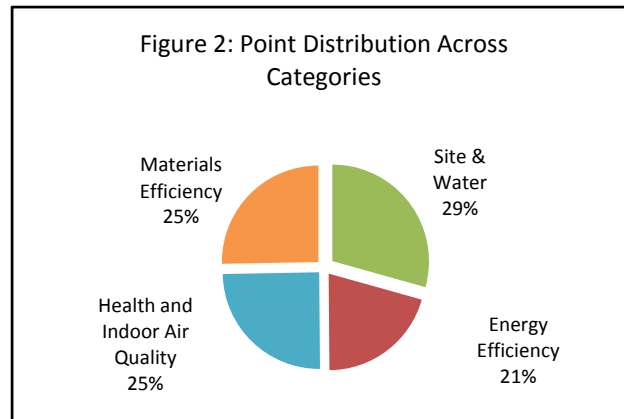
Rating Achievement Trends

The pie chart in Figure 1 shows the achievement of ratings of the Single-Family projects in 2008. As can be seen, the 2008 projects were predominately 3-star projects (80%)



Credit Achievement Trends

The trends in credit achievement are equally interesting and can be observed in detail in the credit achievement summaries for each category. A summary of the credit distribution across categories can be seen in Figure 2. This graph shows that projects are achieving points evenly across the four categories.



Within each category there are credits which are achieved by many projects, and credits which are achieved by few projects. While there are no credits which all Built Green projects achieve, there are a few achieved by over 90% of the projects. Additionally, there are a significant number of credits in each category that are not being pursued by any projects.

Most Frequently Achieved Credits

Site & Water

- Build on Infill Lot to take Advantage of Existing Infrastructure

Energy Efficiency

- Light Colored Interior Finishes
- Install an Energy Star Dishwasher

Health & Indoor Air Quality

- Grade to Drain Away from Building

Credits Not Achieved

Site & Water

- Build in a Built Green Development
- Install Composting Toilets

Energy Efficiency

- Build a Zero Net Energy Home that Draws Zero Outside Power or Fuel on a Net Annual Basis
- Use Structural Insulated Panels (SIPs) on Whole House
- Use Insulated Exterior Sheathing
- Passive Solar Design, Advanced Features Installed
- Model Solar Design Features Using Approved Modeling Software
- Third-Party Duct Test Results less than 6% Loss of Floor Area to Outside /Total Flow
- Install Biofuel Appliances
- Install Drainwater Heat Recovery System (DHR)
- Use Light Tubes for Natural Lighting and to Reduce Electric Lighting

- Install Innovative Non-Solar Renewable Power Systems that Produce a Minimum of the House's Total Energy

Health & Indoor Air Quality

- Project Team Member to have taken American Lung Association (ALA) of WA "Healthy House Professional Training" Course or Other IAQ Class
- Certify House under ALA Health House Program or Other Program

Materials Efficiency

- Use Dimensional Lumber that is Third Party Certified Sustainably Harvested Wood
- Use Beams that are Third Party Certified Sustainably Harvested Wood
- Use Factory Framed Wall Panels (Panelized Wall Construction)
- Use Replaceable Carpet Tile
- Use Flooring that is Third-Party Certified Sustainably Harvested Wood
- Use Recycled or "Reworked" Paint and Finishes
- Use Recycled Newspaper or Cork Expansion Joint Filler
- Use Natural Wall Finishes, Lime Paint or Clay
- Use Wood Siding that is Third-Party Certified Sustainably Harvested Wood
- Use Straw Bale Walls, Minimum R-28
- Use Finger-Jointed Wood Windows
- Use Wood Windows that are Third-Party Certified Sustainably Harvested Wood
- Use Trim that is Third-Party Certified Sustainably Harvested Wood
- Use Wood Veneers that are Third-Party Certified Sustainably Harvested Wood
- Use Solar Shingles

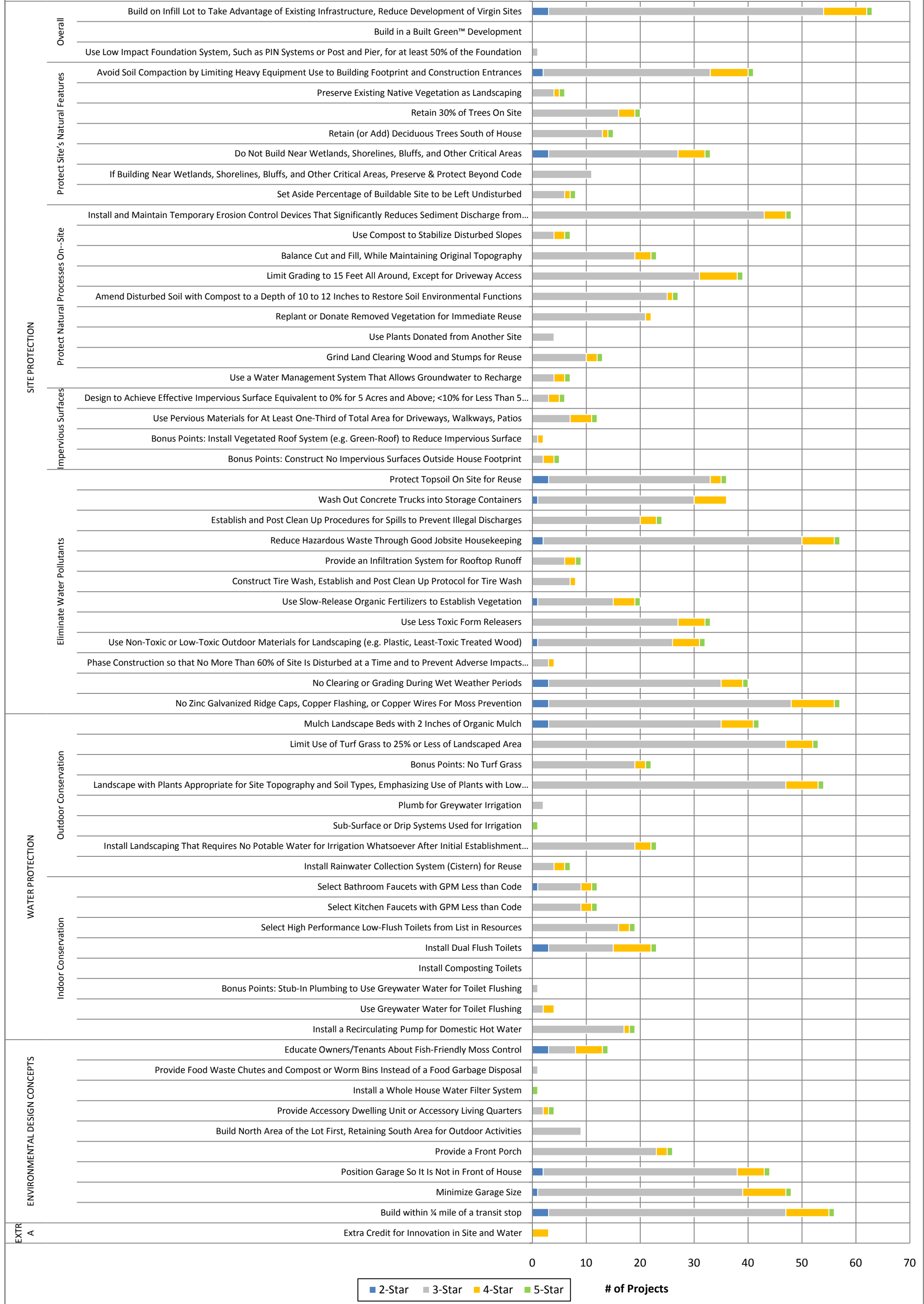
Next Steps

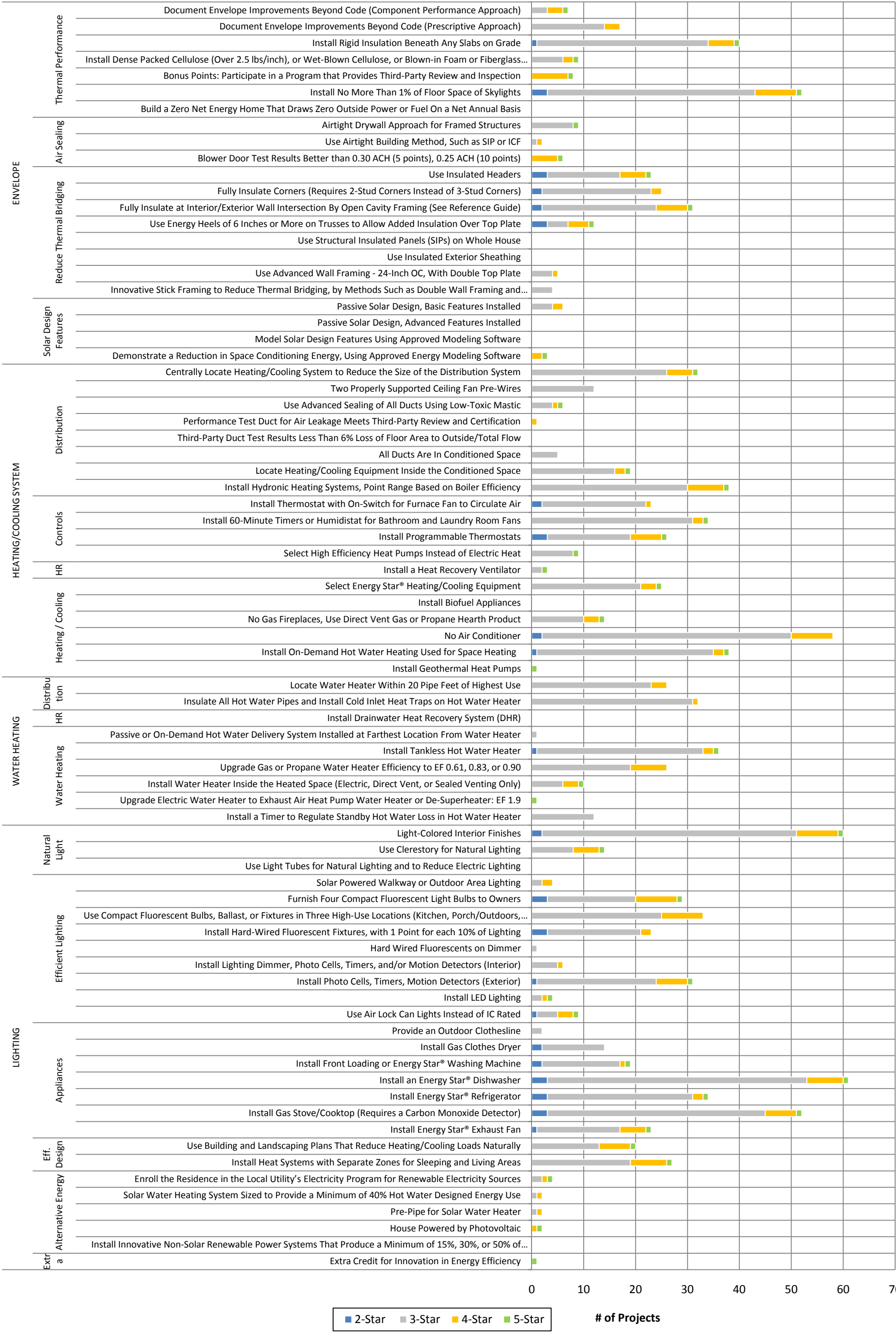
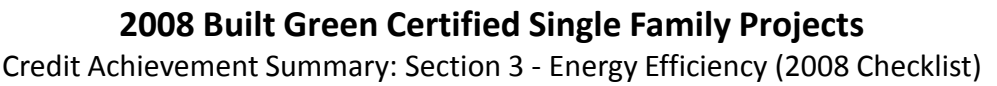
The Built Green rating system is rich with information and the next steps will involve the deeper investigation of the program and development of an analysis tool. The following components of research and development will begin in this next phase:

- Communication with Built Green program staff for investigation of additional information on projects, such as building square footage, site area, etc.
- Engagement with Seattle City Light and SPU on the development of equations to extract quantifiable information from the Built Green checklist
- Development of Built Green Tool to quantify credit achievement and savings

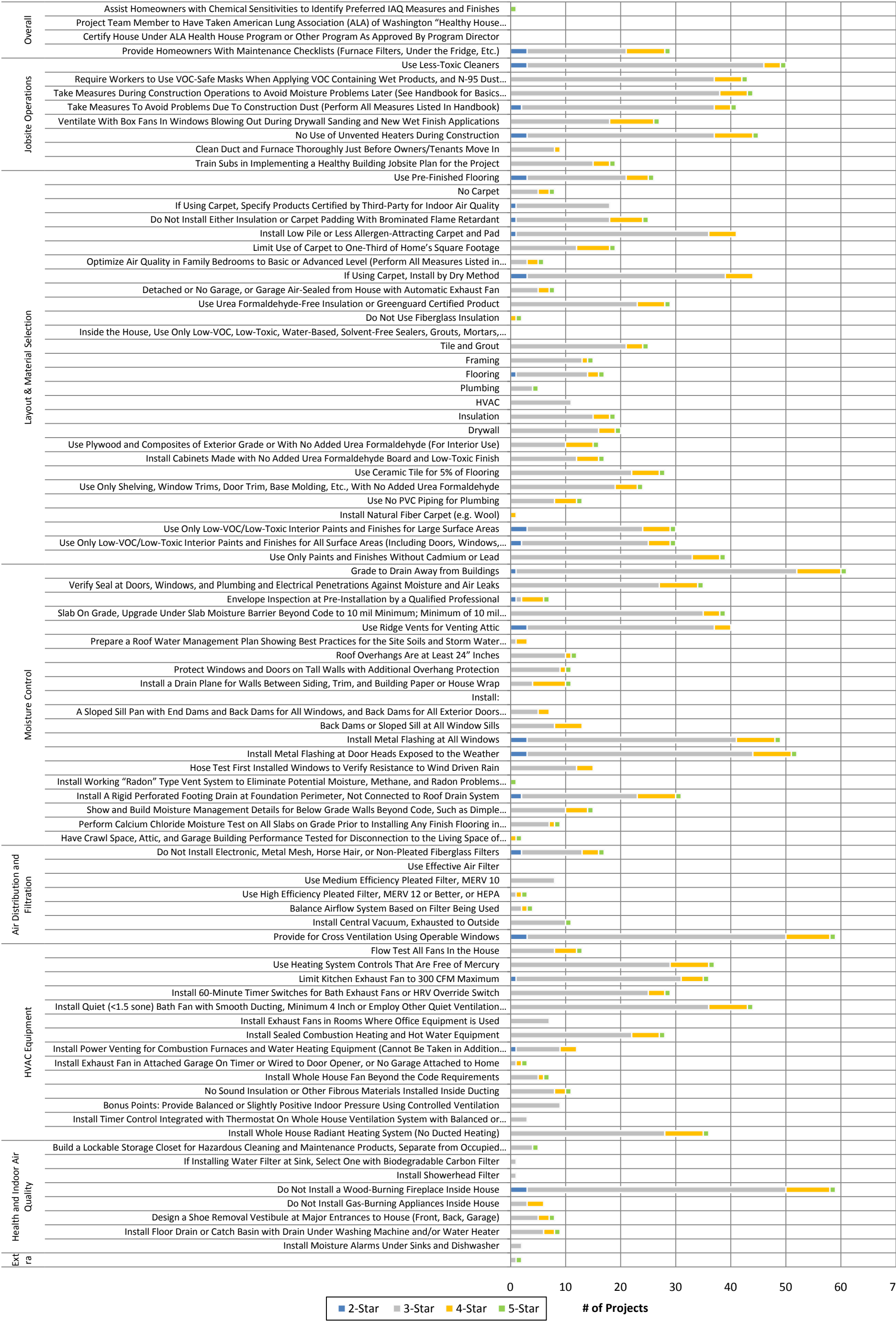
2008 Built Green Certified Single Family Projects

Credit Achievement Summary: Section 2 - Site & Water (2008 Checklist)



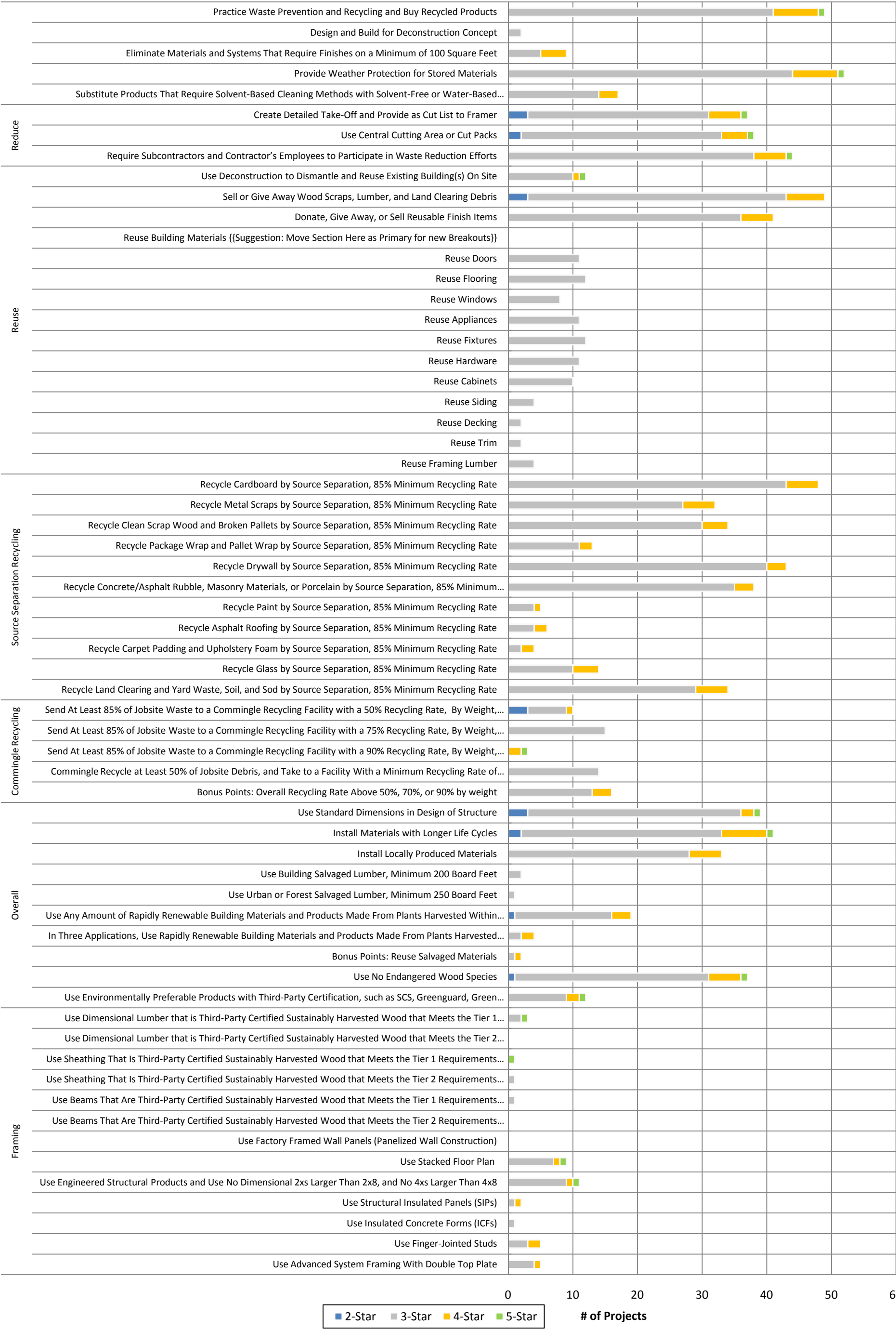


2008 Built Green Certified Single Family Projects
Credit Achievement Summary: Section 4 - Health & Indoor Air Quality (2008 Checklist)



2008 Built Green Certified Single Family Projects

Credit Achievement Summary: Section 5 - Materials Efficiency I (2008 Checklist)



2008 Built Green Certified Single Family Projects

Credit Achievement Summary: Section 5 - Materials Efficiency II (2008 Checklist)

